REMARKS

In the non-final Office Action, the Examiner objected to the drawings for lacking legends, objected to the specification, rejected claims 7, 15, 16, 18, 19, and 23-27 under 35 U.S.C. § 102(e) as being anticipated by MA et al. (U.S. Patent No. 5,953,338); rejected claims 6 and 17 under 35 U.S.C. § 103(a) as being unpatentable over MA et al. in view of FREDETTE et al. (U.S. Patent No. 6,697,361); and rejected claim 28 under 35 U.S.C. § 103(a) as being unpatentable over MA et al. in view of TAPPAN (U.S. Patent No. 5,991,300).

By this Amendment, Applicant amends the specification to improve form and amends Figs. 1, 4, 5, 8, and 9 of the drawings to add legends. Applicant respectfully traverses the Examiner's rejections under 35 U.S.C. §§ 102 and 103.

In paragraph 2 of the Office Action, the Examiner required new corrected drawings because Figs. 1, 4, 5, 8, and 9 lacked legends for all elements of the figures. Applicant provides herewith replacement sheets for Figs. 1, 4, 5, 8, and 9. The replacement sheets include legends for the various elements shown in the figures. Accordingly, Applicant respectfully requests that the requirement for corrected drawings be reconsidered and withdrawn.

In paragraph 3 of the Office Action, the Examiner objected to the specification because "a format is not adequate for proper reading." The Examiner did not provide enough information for Applicant to understand the basis for the objection. Nevertheless, Applicant has amended the specification in various places to improve form. Accordingly,

Applicant respectfully requests that the objection to the specification be reconsidered and withdrawn.

In paragraph 5 of the Office Action, the Examiner rejected claims 7, 15, 16, 18, 19, and 23-27 under 35 U.S.C. § 102(e) as allegedly anticipated by MA et al. Applicant respectfully traverses the rejection.

A proper rejection under 35 U.S.C. § 102 requires that a single reference teach every aspect of the claimed invention either expressly or impliedly. Any feature not directly taught must be inherently present. In other words, the identical invention must be shown in as complete detail as contained in the claim. See M.P.E.P. § 2131. MA et al. does not disclose or suggest the combination of features recited in claims 7, 15, 16, 18, 19, and 23-27.

Independent claim 15, for example, is directed to a node which consolidates communication connections in a connection-oriented network. The node comprises a processor which determines whether a tunneling communication connection is present both in a first route of an existing communication connection and in a second route of a second communication connection, where the first and second routes have different destination nodes in the connection-oriented network. The processor modifies a parameter of the tunneling communication connection to accommodate merging the second communication connection in the tunneling communication connection. The processor merges the existing communication connection and the second communication connection on the tunneling communication connection.

MA et al. does not disclose or suggest the combination of features recited in claim 15. For example, MA et al. does not disclose or suggest a processor which determines whether a tunneling communication connection is present both in a first route of an existing communication connection and in a second route of a second communication connection, where the first and second routes have different destination nodes in the connection-oriented network.

The Examiner alleged that MA et al. discloses "determining whether a new virtual connection over existing virtual path can be connected through a particular ATM edge switch having interfaces needed to interact with various clients," alleged that this is equivalent to the above-identified features of claim 15, and cited the abstract and Fig. 1A of MA et al. for support (Office Action, page 3). Applicant disagrees.

In the Abstract, MA et al. discloses:

> A system comprises a system control module and a plurality of interconnected asynchronous transfer mode switches the interconnected asynchronous transfer mode switches are interconnected with one another via at least one physical interface to form a network. The network is used to transfer various types of information. Each asynchronous transfer mode switch has a connection admission control module to determine whether a virtual connection, such a virtual path, virtual channel, or grouping of virtual paths, can be connected through that particular asynchronous transfer mode switch. The virtual connection is formed from one asynchronous transfer mode switch to at least one other asynchronous transfer mode switch via a link of the at least one physical interface. The system control module connects to at least one asynchronous transfer mode switch and determines whether the virtual connection can be created in the network. A process of monitoring a utilization level of a grouping of a virtual path on a physical interface comprises checking the utilization level of the virtual path, updating an amount of available bandwidth for the virtual path, and comparing the amount of available bandwidth with a maximum threshold for the available bandwidth and setting an overload condition if the amount exceeds the maximum threshold and clearing the overload condition if the amount is below the maximum threshold. Service contracts governing a client's use of the network and ability to set up a virtual connection are also be checked in certain circumstances.

In this section, MA et al. discloses that each asynchronous transfer mode switch has a connection admission control module to determine whether a virtual connection, such a virtual path, virtual channel, or grouping of virtual paths, can be connected through that particular asynchronous transfer mode switch. Nowhere in this section, or elsewhere, does MA et al. disclose or suggest a processor that determines whether a tunneling communication connection is present both in a first route of an existing communication connection and in a second route of a second communication connection, where the first and second routes have different destination nodes in the connection-oriented network, as required by claim 15.

In connection with Fig. 1A, MA et al. discloses:

> FIG. 1A shows a preferred embodiment 180. Virtual private network 170 is comprised of centralized control module 160 and ATM Edge Switches 130G, 130H, 130I, and 130J and ATM Switch 130K ATM Switch 130K forms the backbone of virtual private network 170, whereas ATM Edge Switches 130G, 130H, 130I, and 130J have the additional interfaces needed to interact with various Clients A and B in order to concentrate these numerous small physical interfaces 142A, 142B, 142C, . . . , and 142F from clients into larger physical interfaces 141A, 141B, 141C, and 141D. Centralized control module 160 manages calls for virtual private network 170 and is generally comprised of call control module 140, centralized call admission control/usage monitor module 145, and bandwidth manager module 150.
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> In general, call control module 140 handles the majority, if not all, of the call requests for virtual private network 170. Centralized call admission control/usage monitor module 145 determines whether or not to allow a specific `call` to access to virtual private network 170. Bandwidth manager module 150 controls the size of all virtual paths in virtual private network 170 in response to and in conjunction with call control module 140 and centralized call admission control/usage monitor module 145. Note call control module 140, centralized call admission control/usage monitor module 145, and bandwidth manager module 150 preferably all run on a single computing platform (e.g., a computer), but, alternatively, may be configured to run on more than one separate computer platform at multiple locations. Also, note that a virtual private network may stretch across large geographic distances. For instance, ATM Edge Switches

> 130H and 130G may reside in Richardson, Tex., whereas ATM Edge Switches 130I and 130J may reside in Raleigh, N.C. And, ATM Switch 130K may reside somewhere else, such as in Knoxville, Tenn. Centralized control module 160 may be positioned in one or more places as well. For the purposes of illustration, all of the transmission facilities or physical interfaces shown in the figures are presumed to be OC-3 interfaces, but other physical interfaces can be used.

In this section, MA et al. discloses that call control module 140 handles the majority of the call requests for virtual private network 170, centralized call admission control/usage monitor module 145 determines whether or not to allow a specific call to access virtual private network 170, and bandwidth manager module 150 controls the size of all virtual paths in virtual private network 170. Nowhere in this section, or elsewhere, does MA et al. disclose or suggest a processor that determines whether a tunneling communication connection is present both in a first route of an existing communication connection and in a second route of a second communication connection, where the first and second routes have different destination nodes in the connection-oriented network, as required by claim 15.

In addition, even assuming, for the sake of argument, that the Examiner is correct that MA et al. discloses "determining whether a new virtual connection over existing virtual path can be connected through a particular ATM edge switch having interfaces needed to interact with various clients" (a point that Applicant does not concede), this alleged feature of MA et al. cannot reasonably be equated to determining whether a tunneling communication connection is present both in a first route of an existing communication connection and in a second route of a second communication connection, where the first and second routes have different destination nodes in the connection-

oriented network, as required by claim 15. If this rejection is maintained, Applicant requests that the Examiner explain how determining whether a new virtual connection can be connected through a particular ATM edge switch is the same as determining whether a tunneling communication connection is present in both a first route and a second route, as required by claim 15.

MA et al. also does not disclose or suggest a processor that modifies a parameter of the tunneling communication connection to accommodate merging the second communication connection in the tunneling communication connection, as further recited in claim 15. The Examiner alleged that MA et al. discloses "updating an amount of available bandwidth for the virtual path after allowing a new virtual connection into existing virtual path," alleged that this is equivalent to the above-identified feature of claim 15, and cited column 6, lines 10-14 and 50-53, of MA et al. for support (Office Action, page 3). Applicant disagrees.

At column 6, lines 9-18 and 47-53, MA et al. discloses:

> Bandwidth manager module 150 controls the size of all virtual paths in virtual private network 170 in response to and in conjunction with call control module 140 and centralized call admission control/usage monitor module 145. Note call control module 140, centralized call admission control/usage monitor module 145, and bandwidth manager module 150 preferably all run on a single computing platform (e.g., a computer), but, alternatively, may be configured to run on more than one separate computer platform at multiple locations.
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> As with the single virtual private network 170 in FIG. 1A, at least one ATM switch, such as ATM Edge Switch 130A, is connected to centralized control module 160, which has submodules therein to manage various parameters used to define virtual paths and/or virtual channels, such as bandwidth and the number of calls.

In these sections, MA et al. discloses that bandwidth manager module 150 controls the size of virtual paths in virtual private network 170 and that centralized control module 160 includes submodules to manage various parameters used to define virtual paths and/or virtual channels. Nowhere in these sections, or elsewhere, does MA et al. disclose or suggest modifying a parameter of the tunneling communication connection to accommodate merging the second communication connection in the tunneling communication connection, as required by claim 15.

In addition, even assuming, for the sake of argument, that the Examiner is correct that MA et al. discloses "updating an amount of available bandwidth for the virtual path after allowing a new virtual connection into existing virtual path" (a point that Applicant does not concede), this alleged feature of MA et al. cannot reasonably be equated to modifying a parameter of the tunneling communication connection to accommodate merging the second communication connection in the tunneling communication connection, as required by claim 15. If this rejection is maintained, Applicant requests that the Examiner explain how updating an amount of available bandwidth for the virtual path after allowing a new virtual connection into existing virtual path is the same as modifying a parameter of a tunneling communication connection to accommodate merging a second communication connection in the tunneling communication connection, as required by claim 15. Applicant also requests that the Examiner identify a portion of the disclosure of MA et al. that supports the Examiner's allegation because the sections identified by the Examiner do not.

MA et al. also does not disclose or suggest a processor that merges the existing communication connection and the second communication connection on the tunneling communication connection, as further recited in claim 15. The Examiner alleged that MA et al. discloses "updating an amount of available bandwidth for the virtual path after allowing a new virtual connection into existing virtual path," alleged that this is equivalent to the above-identified feature of claim 15, and cited column 6, lines 10-14 and 50-53, of MA et al. for support (Office Action, page 3). Applicant disagrees.

Column 6, lines 9-18 and 47-53, MA et al. have been reproduced above. In these sections, MA et al. discloses that bandwidth manager module 150 controls the size of virtual paths in virtual private network 170 and that centralized control module 160 includes submodules to manage various parameters used to define virtual paths and/or virtual channels. Nowhere in these sections, or elsewhere, does MA et al. disclose or suggest merging the existing communication connection and the second communication connection on the tunneling communication connection, as required by claim 15.

In addition, even assuming, for the sake of argument, that the Examiner is correct that MA et al. discloses "updating an amount of available bandwidth for the virtual path after allowing a new virtual connection into existing virtual path" (a point that Applicant does not concede), this alleged feature of MA et al. cannot reasonably be equated to merging the existing communication connection and the second communication connection on the tunneling communication connection, as required by claim 15. If this rejection is maintained, Applicant requests that the Examiner explain how updating an amount of available bandwidth for the virtual path after allowing a new virtual

connection into existing virtual path is the same as merging the existing communication connection and the second communication connection on the tunneling communication connection, as required by claim 15. Applicant again requests that the Examiner identify a portion of the disclosure of MA et al. that supports the Examiner's allegation.

For at least these reasons, Applicant submits that claim 15 is not anticipated by MA et al. Claims 16, 18, 19, and 23 depend from claim 15 and are, therefore, not anticipated by MA et al. for at least the reasons given with regard to claim 15.

Independent claim 24 recites features similar to features recited in claim 15. Therefore, claim 24 is not anticipated by MA et al. for reasons similar to reasons given with regard to claim 15. Claims 7 and 25-27 depend from claim 24 and are, therefore, not anticipated by MA et al. for at least the reasons given with regard to claim 24.

In paragraph 7 of the Office Action, the Examiner rejected claims 6 and 17 under 35 U.S.C. § 103(a) as allegedly unpatentable over MA et al. in view of FREDETTE et al. Applicant respectfully traverses the rejection.

Claims 6 and 17 depend from claims 24 and 15, respectively. Without acquiescing in the Examiner's rejection, Applicant submits that the disclosure of FREDETTE et al. does not cure the deficiencies in the disclosure of MA et al. identified above with regard to claims 15 and 24. Therefore, claims 6 and 17 are patentable over MA et al. and FREDETTE et al., whether taken alone or in any reasonable combination, for at least the reasons given with regard to claims 15 and 24.

Also in paragraph 7 of the Office Action, the Examiner rejected claim 28 under 35 U.S.C. § 103(a) as allegedly unpatentable over MA et al. in view of TAPPAN. Applicant respectfully traverses the rejection.

Claim 28 depends from claim 24. Without acquiescing in the Examiner's rejection, Applicant submits that the disclosure of TAPPAN does not cure the deficiencies in the disclosure of MA et al. identified above with regard to claim 24. Therefore, claim 28 is patentable over MA et al. and TAPPAN, whether taken alone or in any reasonable combination, for at least the reasons given with regard to claim 24.

In view of the foregoing amendment and remarks, Applicant respectfully requests the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the

filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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Attachment: Replacement Sheets of Drawings

ATTACHMENT: REPLACEMENT SHEETS OF DRAWINGS

Amendments to the Drawings:

The attached sheets of drawings include changes to Figs. 1, 4, 5, 8, and 9. These sheets replace the original sheets including Figs. 1, 4, 5, 8, and 9. The drawings have been amended to include legends. No new matter has been added.

Attachment: Replacement Sheets